Environmental Management Programs Final Report
(Fiscal Year 2004)

REFUSE DISPOSAL DIVISION

This report summarizes the results of our Environmental Management Programs (EMPs) in meeting the Refuse Disposal Division's (RDD) objectives and targets for the fiscal year 2004 (July 2003-June 2004).

Objectives and Targets:

Stationary Equipment Exhaust Emissions Reductions

a) Target- *Stationary Equipment Emissions – Best Management Practices (BMPs) for maximum reduction in Particulate Matter (PM-10)*: Introduce fuel additive into Standard Operating Procedure for Diamond Z tub grinder. Investigate potential replacement alternatives (electric) for Diamond Z tub grinder. Continue to review and amend where necessary, operating procedures and maintenance activity to obtain optimum fuel efficiency.

Positive Impact – Continuous Improvement

a) Target – *Storm-water Runoff – zero violations from Regional Water Quality Control Board*: Construct water treatment works to remove silt from storm-water runoff within sedimentation basin at the Miramar Landfill. Maintain N.P.D.E.S. Best Management Practices (BMPs) program.

b) Target - *Vehicle Emissions - Minimize fee transaction idle time*:
Add additional fee booth and scale, upgrade traffic flow pattern, replace existing fee booths to improve fee-booth operations with an emphasis on reducing vehicle idle time and improving traffic flow and load check screening process.

Resource Conservation

a) *Scrap Metal Waste Stream:* Develop and implement a "pilot" scrap metal diversion program at the Miramar Landfill tip-face. Determine the feasibility of the process including cost, material recovery, revenue, and landfill capacity savings. It is hoped that this data can be extrapolated to include other materials as well.

Results:

The results of our FY04 EMPs indicated that our efforts have been, in large part, very successful while not necessarily meeting the expected results initially targeted at the beginning of the year. This was attributed to factors beyond the control of the Division as well as to the flexibility and ingenuity of our staff as circumstances arose throughout the year. The remainder of this report describes the results of our EMPs for meeting our Environmental Management System objectives and targets.

Exhaust Emissions Reductions

Stationary Equipment

As a result of FY03 research and testing, the R.D.D. attempted to purchase a proprietary fuel additive for use in the trommel screen and both tub grinders. However, follow on conversations with the supplier indicated that they could not provide the proprietary information, claimed by the manufacturer, necessary to complete a sole source purchase of the product. No similar products have been identified and this option was suspended pending further investigation.

The Air Pollution Control District offered a grant program that would pay the difference between upgrading an old engine verses replacing it with a cleaner more efficient engine. We investigated this program and determined that the difference in cost was negligible, approximately $1,000, and that we would not be considered for the limited grant money due to the minimal amount of time the old tub grinder operates on a weekly basis. However, due to the limited difference in cost, it will pay to upgrade to a new Tier II engine rather than retrofit or rebuild the existing engine. Future plans call for a new trommel screen to be purchased in FY-05 and a new tub grinder in FY-06.

Positive Impact (Continuous Improvement)

Expand N.P.D.E.S. Best Management Practices (BMPs) program: No Notices of Violations or fines were issued to the landfill this season. The pump down of the retention basin totaled approximately 1.3 million gallons effectively doubling the capacity of the retention basin.
Additional research into alternative processes for mitigating impacts from our storm-water have resulted in suspending the treatment works project while a demonstration of a simplified treatment process is completed. This simplified process includes the application of Soilfloc ™ to the storm-water by a drip-system prior to the water entering the retention basin. It was also applied to the steep slopes to prevent erosion and minimize siltation of the storm-water runoff. Based on the simplified process results it has been determined that construction of the treatment works is not required. This will save the City approximately one million dollars while meeting or exceeding our goals of preventing silts from entering the biological corridor adjacent to the landfill.

Other storm-water impact preventive measures implemented this year included the application of 43,870 cubic yards of mulch, 1,400 gallons of tackifier applied to the slopes, installation of 100 feet of silt fencing, and 500 additional feet of rip-rap channel. A 500 foot gabion channel was also constructed to prevent erosion along a storm-water creek bed adjacent to South Miramar. In addition, a 50 foot wide road crossing including two 24” HDPE pipes for water diversion and runoff control was installed on site.

This EMP will be continued in FY05 with an emphasis on determining how effective the simplified system will be in the event of increased rainfall events throughout the year.

Fee Booth Expansion Project: Construction of Phase One of the fee booth expansion project was 80 percent complete at the end of this fiscal year. Delays in the construction of the fee booth and delivery of the scale have pushed the estimated completion of this project to the fall of 2004. Phase One includes installation of a new 8' X 10' fee booth and 35 ft.- 40 ft. above ground scale to the east of existing fee booths, upgrading electrical and computer service to the area, adding additional parking, reconfiguring the by-pass lane and re-paving existing parking areas and portions of the travel-way adjacent to the fee booths.

Phase Two includes replacing two small fee booths with 8' X 10' booths similar or equal to the new booth constructed in Phase One and will include decking, paving and signage as necessary. Phase Two will begin construction shortly after the completion of Phase One.

Resource Conservation

Research into the scrap metal pilot project indicated that the majority of the scrap metal waste stream comes to the landfill in the form of mixed construction and demolition (C&D). Review of the operations at the commercial tip deck revealed that due to the size and amount of traffic in a tight operating area it would be too dangerous and disruptive to the disposal operation to try to divert and recover the material at that point in the operation. It has subsequently been determined that there is a viable public-private partnership opportunity to develop a commercial C&D material recovery facility at the landfill. We are currently pursuing this project as the best way to recover scrap metal and other recyclable wastes including gypsum, cardboard, concrete, and tires.

Monitoring:

We continue to monitor the activity and results of former EMPs to ensure that they continue to meet the requirements of our environmental policy. The last five months of FY-04 saw a 100% reduction in excess idle time during extended periods when heavy equipment was not in use by city forces. The total excess hours for the year equaled 377 hours, a reduction of over 5,000 hours compared to FY-03.

Conclusion:

The greatest challenges in the years ahead, regarding our Environmental Management System, will be to stay creative in identifying new opportunities for continuous improvement and not become complacent based on past successes. With that in mind we will become more focused on new technology and cooperative efforts between other Divisions within the Environmental Services Department, Public-Private Partnerships as well as with other interested parties.